

# WEST Search History

DATE: Thursday, August 22, 2002

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
L20	l9 with (remov\$5 or transfer\$4)	4016	L20
L19	L17 with (oligonucleotide or polynucleotide or DNA)	2	L19
L18	L17 with nucleic	2	L18
L17	L9 with (solid or support\$4)	167	L17
L16	L15 with pipet\$5	4	L16
L15	nucleic with transfer\$4 with contact\$4	211	L15
L14	L13 with (array or immobiliz\$6)	2	L14
L13	L12 with nucleic	33	L13
L12	pipet\$6 with remov\$6	4947	L12
L11	L10 with (array or immobiliz\$6)	2	L11
L10	L9 with nucleic	37	L10
L9	pipet\$6 with transfer\$4	4016	L9
L8	l5 with (cut\$4 or shav\$4)	0	L8
L7	l5 with pipet\$6	0	L7
L6	L5 with (remov\$5 or transfer\$5 or blot\$6)	0	L6
L5	paper adj2 chromatography with nucleic	15	L5
L4	L3 with (immobiliz\$5 or array)	1	L4
L3	nucleic with ablat\$6	72	L3
L2	L1 with (immobiliz\$6 or array)	2	L2
L1	nucleic with scrap\$5	74	L1

END OF SEARCH HISTORY

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<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
L14	L13 with (biological or nucleic)	0	L14
L13	L7 with (array or immobiliz\$5)	31	L13
L12	l10 not l11	66	L12
L11	L10 with (remov\$5 or transfer\$5)	11	L11
L10	L9 with (array or immobiliz\$5)	77	L10
L9	surface with pipet\$5	2932	L9
L8	L7 with (nucleic or dna)	1	L8
L7	surface with shav\$5	6759	L7
L6	(nucleic or dna) with rub\$5 adj off	1	L6
L5	L4 with pipet\$5	0	L5
L4	L1 with (protein or peptide)	0	L4
L3	L1 with biological	0	L3
L2	L1 with (nucleic or DNA)	0	L2
L1	surface with rub adj off	381	L1

END OF SEARCH HISTORY

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L11: Entry 4 of 11

File: USPT

Jul 3, 2001

DOCUMENT-IDENTIFIER: US 6255051 B1

TITLE: Multiple sequential polynucleotide displacement reactions for signal amplification and processing

Detailed Description Text (31):

The displaced polynucleotide sequences of the methods, can be separated from a hybridization complex. For example, the displaced polynucleotide sequences can be separated based on the size difference between the displaced polynucleotide sequence and the complex. Generally, the displaced polynucleotide sequences generated by the methods herein consist of liberated polynucleotide sequences from displacement complexes. Size separation can be accomplished by size-exclusion chromatography, filtration, centrifugation, size-partitioning using size-sensitive membranes, migration through a solid support such as a polyacrylamide gel, starch gel, agarose gel, etc. One of ordinary skill in the art will be familiar with the various techniques of employing size separation that can be used in the present invention. Separation of the signal(s) from a complex may also be based upon the immobilization of the complex while having the signal(s) remain free in solution. If the hybridization complex is immobilized to a surface while the displaced polynucleotide sequence remains free in solution, this allows for the separation of the signal(s) from the complex by mechanical transfer, for example, using a pipette, or migration of the signal(s) by various means. Some of these means comprise migration through a matrix, such as a gel, and include, but are not limited to, electrophoresis, electrically-induced endosmotic flow, wetting, capillary action, and pumped liquid flow.

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L11: Entry 7 of 11

File: USPT

May 7, 1996

DOCUMENT-IDENTIFIER: US 5514550 A

TITLE: Nucleic acid test article and its use to detect a predetermined nucleic acid

Detailed Description Text (114):

A portion (10 .mu.l) of the solution containing amplified target nucleic acids was then diluted with a buffer solution (130 .mu.l) comprising tris(hydroxymethyl)aminomethane buffer (10 mmolar, pH 8.3), potassium chloride (50 mmolar), magnesium chloride (10 mmolar) and gelatin (0.01%). The resulting solution was then heated in an Eppendorf tube at 95.degree. C. for 5 minutes to denature the double stranded target nucleic acids. The heated solution was transferred to a pipette and injected into the pouch described above in a manner to insure even coverage of the thermal paper surface having the immobilized probes. The pouch was then incubated at 42.degree. C. for 5 minutes to anneal the corresponding probes to the respective single stranded HIV-I and .beta.-globin nucleic acid targets. The fluid was removed from the pouch by either forcing the liquid out with air pressure or drawing off the fluid using a syringe.

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L12: Entry 18 of 66

File: PGPB

Aug 23, 2001

DOCUMENT-IDENTIFIER: US 20010016322 A1

TITLE: Method of performing array-based hybridization assays using thermal inkjet deposition of sample fluids

Summary of Invention Paragraph (6):

[0005] In array-based assays in which an array of binding agents is employed, the array is typically contacted with a fluid sample that is suspected of containing the analyte(s) of interest. In currently employed protocols, contact of the array with the sample fluid is achieved in a number of different ways. Thus, a fluid sample may be contacted with the surface of the array using a pipette. In other embodiments, the sample may be flowed over the surface of an array by injecting the sample through a septum. In yet other embodiments, the sample may be flowed over the surface of the array using surface tension, centrifugal force or pressure differentials.

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L12: Entry 25 of 66

File: USPT

Dec 4, 2001

DOCUMENT-IDENTIFIER: US 6326148 B1

TITLE: Detection of copy number changes in colon cancer

Brief Summary Text (51):

Arrays, particularly nucleic acid arrays can be produced according to a wide variety of methods well known to those of skill in the art. For example, in a simple embodiment, "low density" arrays can simply be produced by spotting (e.g. by hand using a pipette) different nucleic acids at different locations on a solid support (e.g. a glass surface, a membrane, etc.).

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L12: Entry 54 of 66

File: USPT

Dec 19, 1995

DOCUMENT-IDENTIFIER: US 5476796 A

TITLE: Immunological test method

Detailed Description Text (51):

A test using the apparatus having the above arrangement will be described as follows. Immobilization treatment on the upper surfaces of the plate-like test pieces 82 is performed following the same procedures as in Example 1, by using a pipette 85. A certain amount of each reagent containing a sample solution having a sufficient concentration of magnetic carrier particles is distributed on the respective test pieces 82, where the reagents are mixed each with other, as shown in FIG. 10B. It is suggested here that the magnetic carrier be added while maintaining the magnet 84 in a horizontal state to be applied uniformly on the test pieces 82, and then samples be brought into contact with the carrier on the test pieces 82. The magnets 84 are simultaneously pivoted in the same direction. As shown in FIG. 10B, the respective magnets 84 are brought into contact with the flat plate 81 at the same inclination angle. After a predetermined precipitating reaction of each test piece is completed, a positive or negative image as in the precipitation image shown in FIGS. 9B or 9C is formed. After the precipitation images are formed on the respective test pieces, the magnets 84 are pivoted to be parallel to the flat plate 81. An attractive force is applied to all the particles of the magnetic carrier forming the precipitation images in a direction perpendicular to the upper surfaces of the test pieces 82. The precipitation images can be stably maintained for a long period of time without breaking the patterns even if vibrations or the like are applied thereto. After completion of the optical measurement of the precipitation image, test pieces 82 alone, or the whole means including flat plate 81 and test pieces 82, are exchanged by an exchanging device, and the following analysis is performed. The flat plate 81 may be carried above the magnet 84 by a carrying device.

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L10: Entry 4 of 37

File: PGPB

Jun 13, 2002

DOCUMENT-IDENTIFIER: US 20020072096 A1

TITLE: Apparatus and methods for parallel processing of micro-volume liquid reactions

Detail Description Paragraph (48):

[0095] For sample mixing, two apparatuses are brought into contact, as above, such that the liquid contents of one or more pairs of sample chambers come into liquid contact, wherein one member of each pair of sample chambers is present in a first apparatus and the other member is present in a second apparatus. Mixing of three or more samples, using three, four, etc. apparatuses is also possible, as will be evident to one of skill in the art. This is particularly advantageous when being used to transfer nucleic acids, such as DNA and RNA, from one apparatus to another. Nucleic acids are easily sheared by methods such as pipeting, and this method allows for the transfer of nucleic acids without the need for pipetting.

Detail Description Paragraph (52):

[0099] Another advantage of the apparatus format of the invention is the ability to minimize shear when loading a microhole array with a nucleic acid. Nucleic acids, such as DNA and RNA, are easily sheared by transfer methods such as pipetting. The apparatus of the invention may be loaded with a solution comprising a nucleic acid simply by contacting the apparatus with a liquid solution, for example, contacting the apparatus with a tray containing the solution of interest (e.g., "dip loading").



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L10: Entry 6 of 37

File: PGPB

Feb 7, 2002

DOCUMENT-IDENTIFIER: US 20020014443 A1

TITLE: System and method for manipulating magnetically responsive particles fluid samples to collect DNA or RNA from a sample

Detail Description Paragraph (23):

[0058] After the elution solution has been added to and mixed within all of the tubes 120, the stepper motor 126 is controlled in step 1120 to move the cam plates 124 along direction A, as shown in FIG. 10, to move the magnets 166 proximate to the tubes 120. The robot 104 is then controlled to use the pipette tips to transfer the elution solution containing the nucleic acid molecules that have been released from the particles 190 into the microtiter trays 116. As with the operations described, the robot 104 uses fresh groups of pipette tips to transfer each group of sample to the respective priming wells and the microtiter trays 116. Once all the samples have been transferred to the priming wells, the robot 104 uses fresh groups of pipette tips to transfer the samples to the amplification wells and microtiter trays (not shown). Once all the samples have been transferred into the amplification wells, the microtiter trays can be placed in a suitable reading device, such as the BDProbeTec.TM. ET system described above, and the process is completed in step 1140. In an alternative embodiment, the robot can transfer the samples directly from the priming wells to the amplification stage of the BDProbeTec.TM. ET system eliminating the need to move or convey microtiter trays.

Detail Description Paragraph (42):

[0077] After the elution solution has been added to and mixed within all of the tubes 220, the stepper motor 226 is controlled in step 1120 to move the cam plates 224 along direction A, as shown in FIG. 10, to move the magnets 266 proximate to the tubes 220. The robot 104 is then controlled to use the pipette tips to transfer the elution solution containing the nucleic acid molecules that have been released from the particles 190 into priming wells and the microtiter trays 116.

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L10: Entry 30 of 37

File: USPT

Jun 3, 1997

DOCUMENT-IDENTIFIER: US 5635349 A

TITLE: High-throughput screening assay for inhibitors of nucleic acid polymerases

Detailed Description Text (18):

In a particular embodiment, the robotic arm is equipped with a general purpose retrieving hand and a pipetting hand. The pipetting hand equipped with a multichannel pipettor retrieves and transfers measured aliquots of each an assay buffer, a solution comprising one or more candidate agents, a solution comprising a labeled nucleotide, a solution comprising the nucleic acid template, and a solution comprising the targeted polymerase activity into each designated well. The general purpose hand then transfers each microtiter plate to an incubator. After a first incubation period for a time and at a temperature to permit assay-detectable polymerization (e.g. 0.5 to 1.5 hours at 34.degree. C.), the general purpose hand transfers each plate to a microbead dispensing station (e.g. a Multidrop system) which deposits in each designated well a measured aliquot of a slurry of DEAE-microbeads (e.g. Sephacell) and a solution of an organic solvent (e.g. methanol) at a concentration sufficient to permeabilize the hydrophobic membrane to water (e.g. about 60% v/v).. After a second incubation period for a time and at a temperature to permit assay-detectable transcript binding (e.g. 0.5 to 1.5 hours at room temperature), the general purpose hand transfers each plate to a vacuum diaphragm where the substantially all of the liquid phase is simultaneously filtered from each well. A measured aliquot of wash solution is then added and then vacuum filtered through each well until background counts are reduced to an assay-acceptable level. Optionally, the the bottom of each plate may be blotted onto an absorbent membrane after one or more filtration steps to remove residual liquid from the bottom of each well. The bottom of the drip director of each well is then sealed (e.g. heat melt sealed) and a measured aliquot of scintillation cocktail added to each well. Thereafter, the amount of label retained in each designated well is quantified.